



# Current Emergency Department Utilization Trends in Maryland

## Medicaid Managed Care Organization (MCO) Medical Directors' Requested Meeting: Emergency Department Over-Utilization and Other Issues

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**UMBC Tech Center**  
**May 27, 2009**

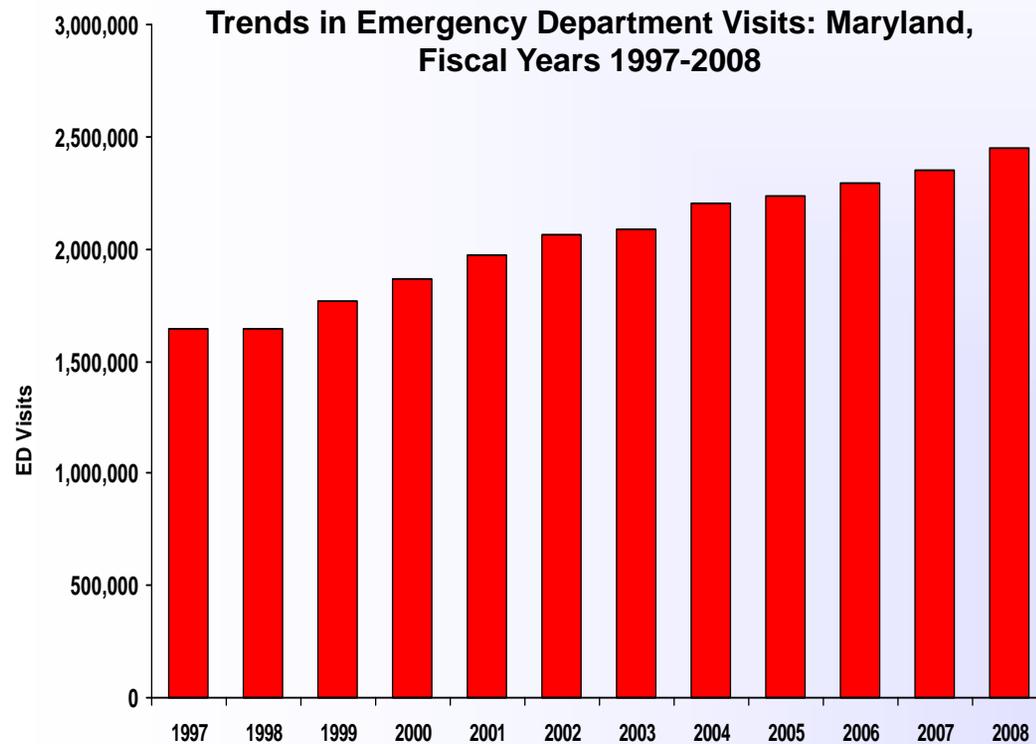


## Data Sources: Emergency Department Services

- **Hospital ED Visits (1990 to Present)**
  - HSCRC Financial Data Base (Aggregate Hospital-Specific Trend Data on ED Admissions and ED Outpatients)
- **Characteristics of Hospital ED Patients (Patient-Level, Hospital-Specific Data on ED Admissions and Outpatients)**
  - Hospital Discharge Data Base (1980 to Present)
    - ED Patients Admitted for Inpatient Care
  - Hospital Ambulatory Care Data Base (2000 to Present)
    - ED Patients Treated and Released
- **Freestanding Medical Facilities Data Base (2007 to Present)**
  - Pilot Project (AHC Germantown Emergency Center and UMMS to be established Queen's Anne's Facility)
  - DHS Bowie Health Center



# Emergency Department Utilization



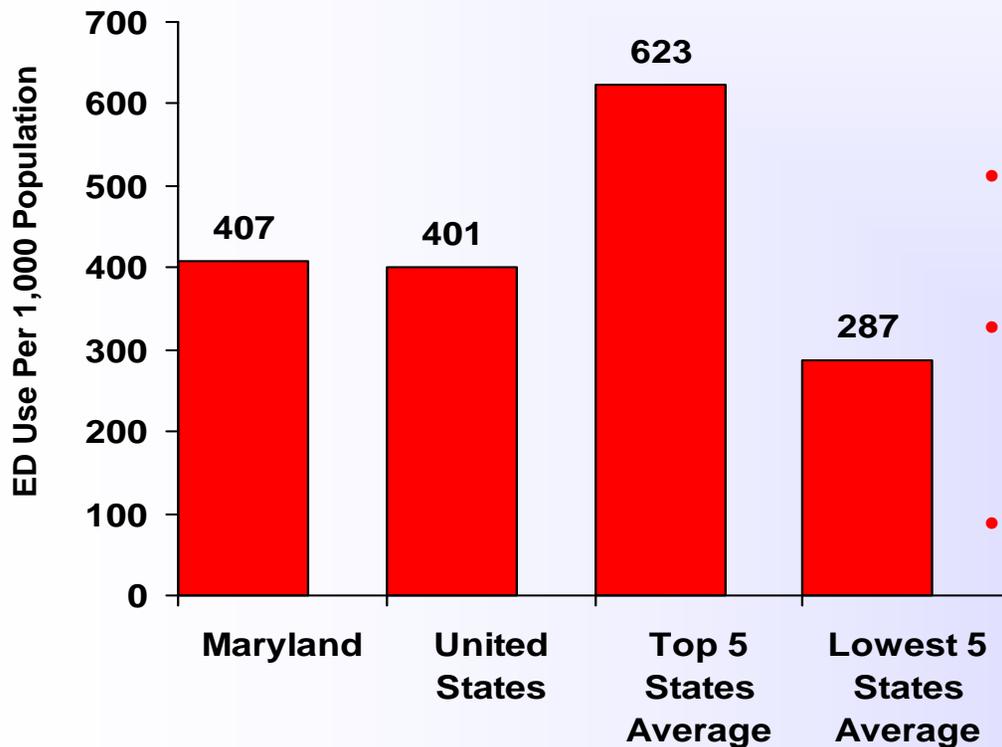
- In fiscal year 2008, there were almost 2.5 million ED visits in Maryland.
- Between 2007 and 2008, ED visits increased by 3.5% (+93,400 visits)
- Average annual change in ED visits:
  - 1997-1999 +3.3%
  - 2000-2002 +5.3%
  - 2003-2005 +2.8%
  - 2006-2008 +3.1%

Source: Maryland Health Care Commission, Health Services Cost Review Commission, Financial Data Base, Fiscal Years 1997-2008 (Data reported includes the Bowie Health Center and Germantown Emergency Center.)



# How Maryland Compares with the United States

**Hospital Emergency Department Visits  
Per 1,000 Population: 2007**



- **Maryland's ED Use Rate (407 Visits per 1,000 Population) was Slightly Above the US Experience in 2007**
- **Maryland Ranks 27<sup>th</sup> in ED Visits Per 1,000 Population**
- **States with the Highest ED Use: District of Columbia; West Virginia; Mississippi; Maine; and Kentucky.**
- **States with the Lowest ED Use: Colorado; Nevada; South Dakota; California; and Hawaii.**

Source: Kaiser State Health Facts, 2007 AHA Annual Surveys. Copyright 2009 by Health Forum LLC, an affiliate of the American Hospital Association, <http://www.statehealthfacts.org/profileind.jsp?ind=400&cat=8&rqn=22>



## Measures of ED Crowding: Maryland, 2004 and 2008

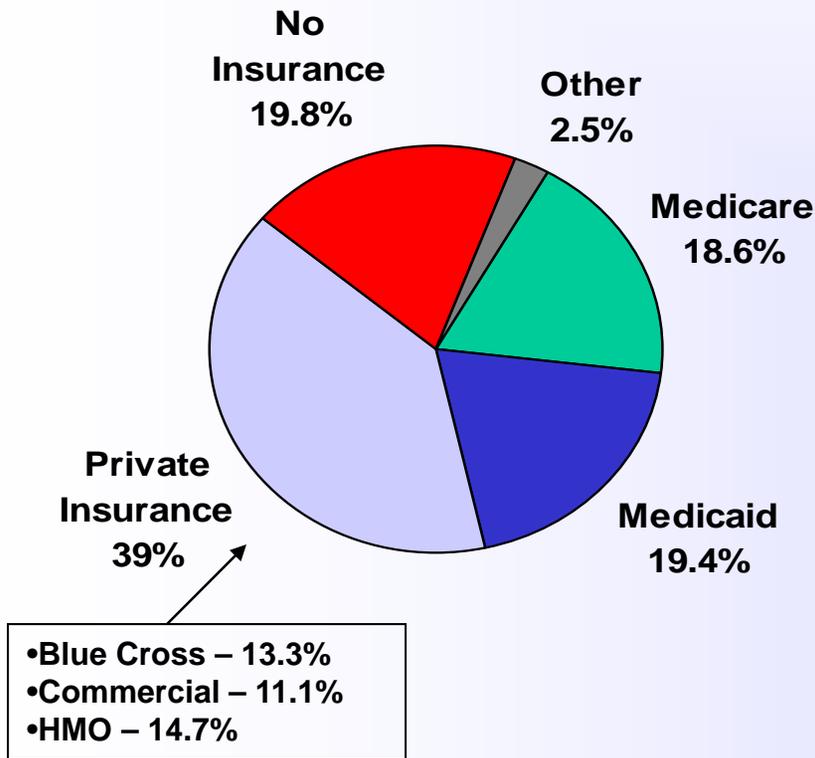
| Measure                               | 2004          |         | 2008          |         |
|---------------------------------------|---------------|---------|---------------|---------|
|                                       | Number        | Percent | Number        | Percent |
| <b><u>ED Treatment Spaces</u></b>     |               |         |               |         |
| Fewer than 20                         | 8             | 17.0%   | 7             | 14.6%   |
| 20-50                                 | 33            | 70.2%   | 29            | 60.4%   |
| More than 50                          | 6             | 12.8%   | 12            | 25.0%   |
| <b><u>Annual ED Visits Volume</u></b> |               |         |               |         |
| Fewer than 50,000                     | 26            | 55.3%   | 23            | 47.9%   |
| 50,000-75,000                         | 16            | 34.0%   | 17            | 35.4%   |
| More than 75,000                      | 5             | 10.6%   | 8             | 16.7%   |
| <b>Average Daily ED Census</b>        | <b>6,027</b>  |         | <b>6,707</b>  |         |
| <b>ED Visits Per Treatment Space</b>  | <b>1,390</b>  |         | <b>1,333</b>  |         |
| <b>Percent ED Patients Admitted</b>   | <b>17.80%</b> |         | <b>18.80%</b> |         |

Source: Maryland Health Care Commission (Annual Reports on Maryland Acute Care Hospital Services and Licensed Bed Capacity, FY 2004 and 2008; HSCRC Financial Data Base, FY 2004 and 2008)



# Emergency Department Use by Payment Source

## Distribution of ED Visits by Payment Source

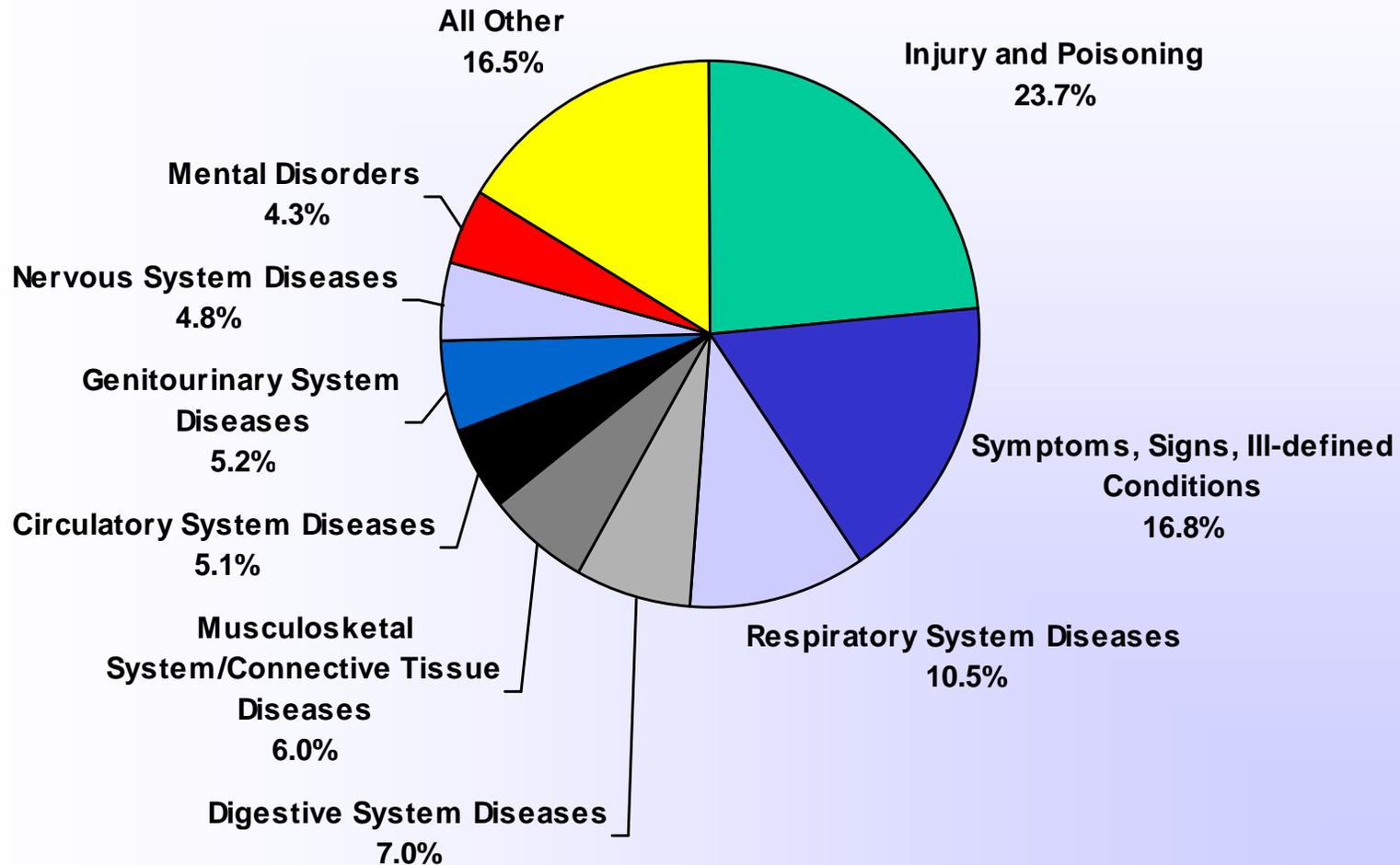


- About 39% of all ED visits are paid for by private insurance.
- Medicare and Medicaid each represent about 19% of all ED visits.
- Patients with no insurance account for about 20% of ED use.

Source: Maryland Health Care Commission (Data reported is based on the Hospital Discharge Abstract Data Base and Hospital Ambulatory Care Data Set, 2007.)



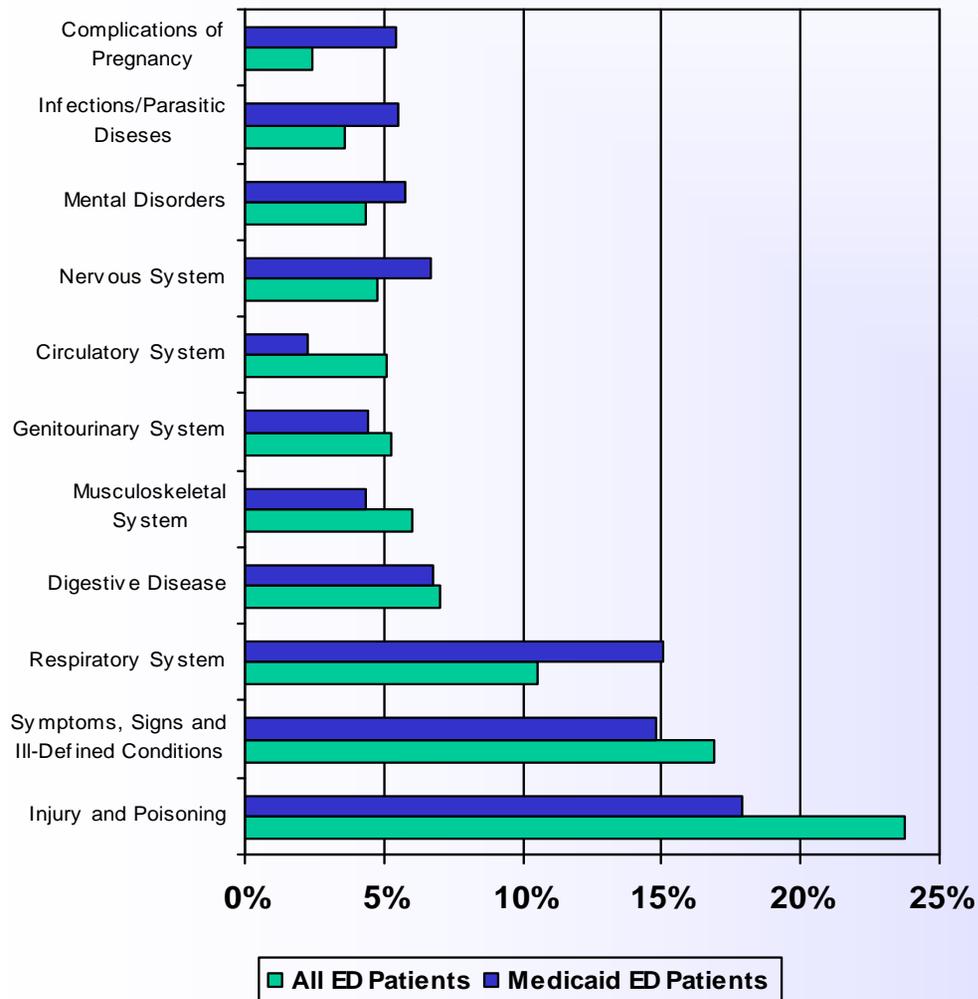
**Slightly more than one-half of ED patients fall into one of three diagnostic categories: injury and poisoning; symptoms, signs, and ill-defined conditions; and respiratory system diseases.**



Source: Maryland Health Care Commission (Data reported is based on the Hospital Discharge Abstract Data Base and Hospital Ambulatory Care Data Set, 2007.)



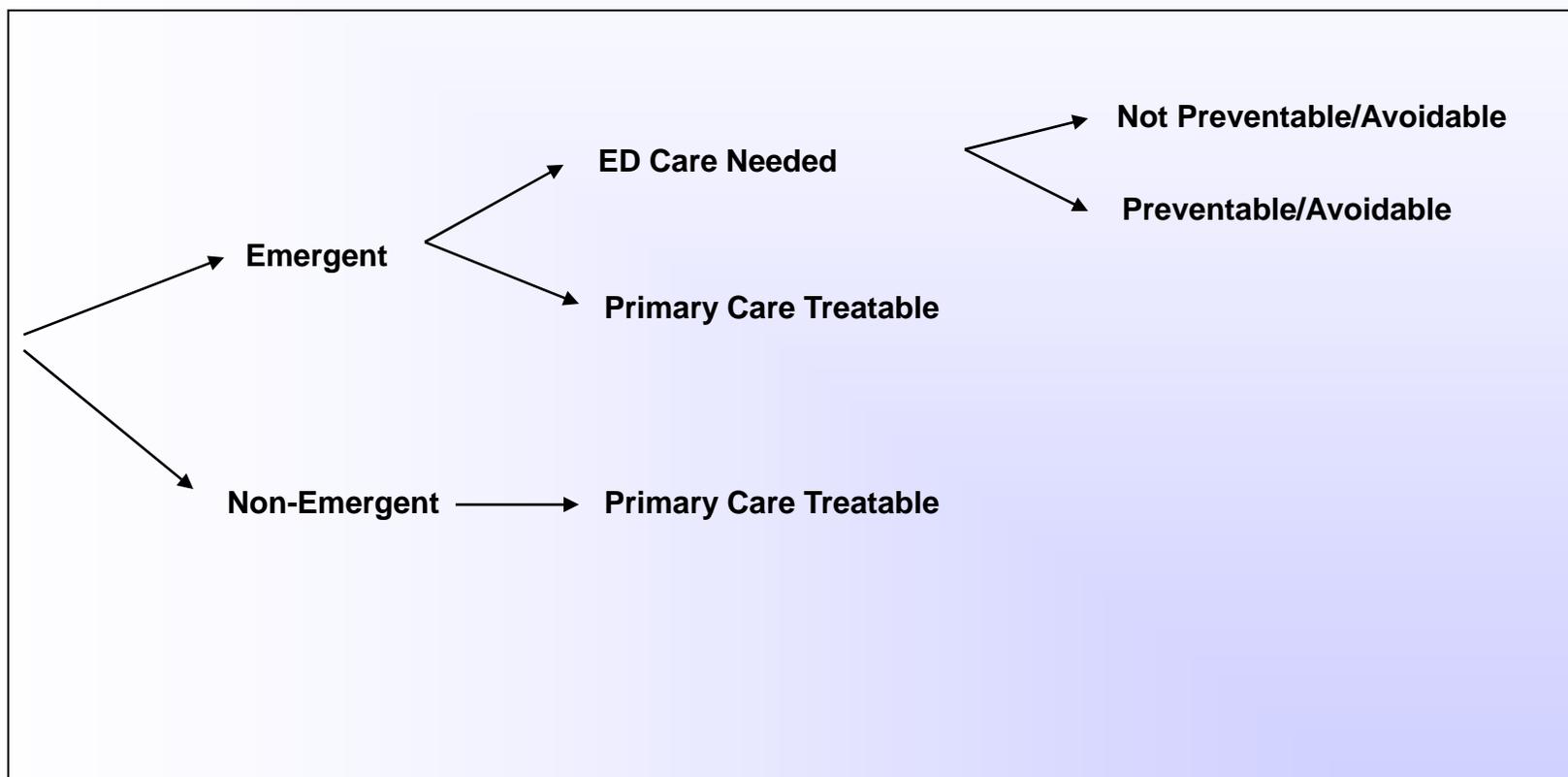
# Leading Causes of ED Utilization for Medicaid Patients



- Similar to overall ED use, three principal diagnosis categories combined account for about one-half of Medicaid ED visits: Injury and Poisoning; Respiratory System; and Symptoms, Signs, and Ill-defined Conditions.
- Diagnostic Categories Where Medicaid Accounts for a Greater Proportion of ED Visits:
  - Respiratory System (15% vs. 10.5%)
  - Mental Disorders (5.8% vs. 4.3%)
  - Complications of Pregnancy (5.4% vs. 2.4%)
  - Infections/Parasitic Diseases (5.5% vs. 3.6%)
- Diagnostic Categories Where Medicaid Accounts for a Lower Proportion of ED Visits:
  - Injury and Poisoning (17.9% vs. 23.7%)
  - Symptoms, Signs and Ill-Defined Conditions (14.8% vs. 16.9%)



# Classifying Emergency Department Visits

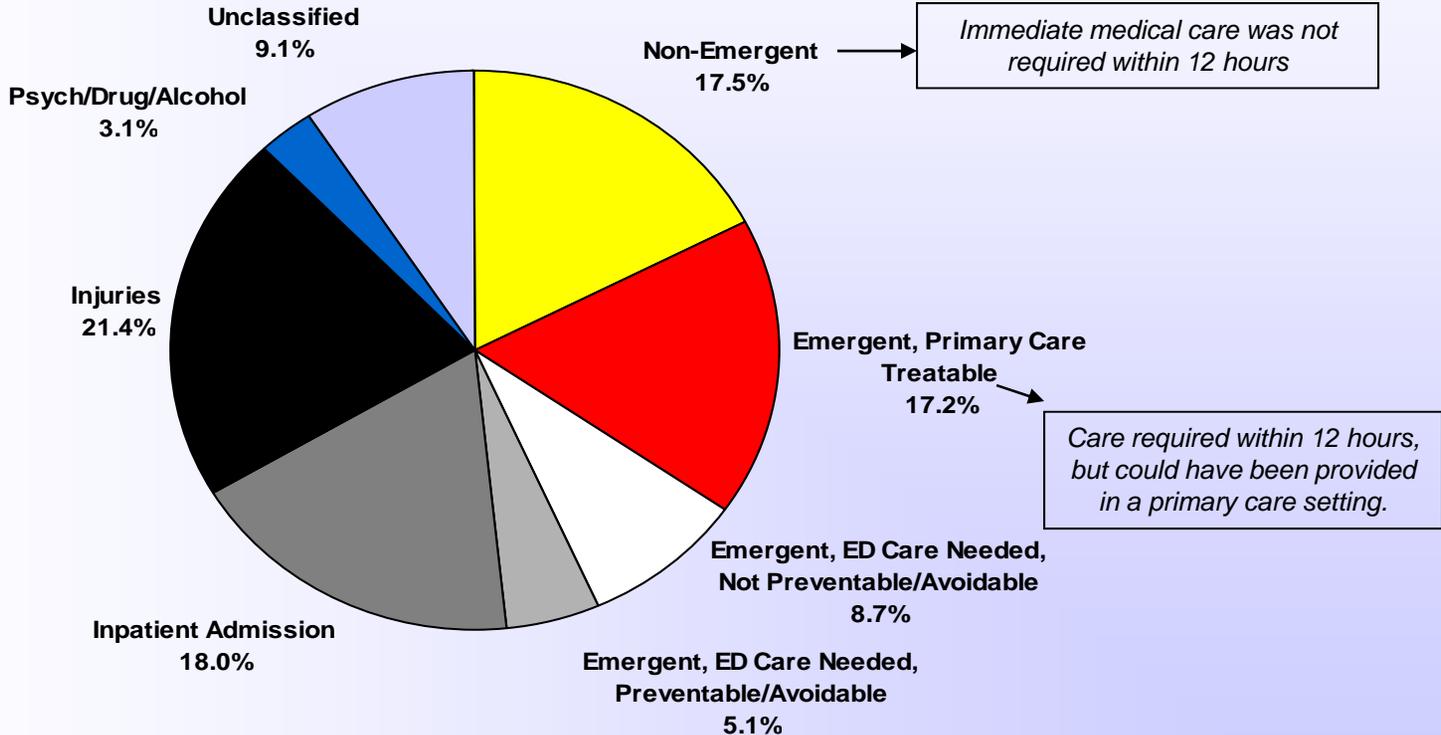


Source: Billings, J et al. Emergency Department Use: The New York Story.  
*Issue Brief: The Commonwealth Fund*, November 2000, p.2.



**Overall, about one-third of all visits are classified as not requiring care in an ED. Within this one-third, 17.5% were considered non-emergent and 17.2% were considered emergent, primary care treatable.**

### Classification of Maryland Hospital Emergency Department Visits



**Source:** Maryland Health Care Commission (The classification of emergency department visits is based on the methodology developed by John Billings and colleagues at the Robert F. Wagner School of Public Service, New York University. The emergency department visit data reported is preliminary data from the Hospital Discharge Data Base and Hospital Ambulatory Care Data Base for January-December 2008.)



While only a small proportion of Medicare visits are classified as non-emergent or emergent but primary care treatable, the pattern of use for all other payment sources and patients with no insurance is similar—with more than one-third of visits not requiring ED care.

### Classification of Emergency Department Visits by Payment Source

| Payment Source    | Non-Emergent | Emergent, Primary Care Treatable | Emergent, Preventable /Avoidable | Emergent, Not Preventable /Avoidable | Inpatient Admission | Injuries, Mental Health, Substance Abuse | Un-classified |
|-------------------|--------------|----------------------------------|----------------------------------|--------------------------------------|---------------------|--|---------------|
| Medicaid          | 21.2%        | 20.0%                            | 6.7%                             | 7.4%                                 | 13.8%               | 20.0%                                    | 11.0%         |
| Medicare          | 9.8%         | 10.8%                            | 3.5%                             | 7.4%                                 | 46.9%               | 14.0%                                    | 7.6%          |
| Private Insurance | 17.9%        | 18.1%                            | 4.9%                             | 10.4%                                | 13.0%               | 27.3%                                    | 8.4%          |
| Uninsured         | 21.1%        | 19.4%                            | 5.7%                             | 8.5%                                 | 6.6%                | 28.4%                                    | 10.3%         |
| Other/ Unknown    | 13.2%        | 11.4%                            | 2.7%                             | 7.2%                                 | 8.2%                | 49.7%                                    | 7.6%          |
| <b>TOTAL</b>      | <b>17.5%</b> | <b>17.2%</b>                     | <b>5.1%</b>                      | <b>8.7%</b>                          | <b>18.0%</b>        | <b>24.5%</b>                             | <b>9.1%</b>   |

**Source:** Maryland Health Care Commission (The classification of emergency department visits is based on the methodology developed by John Billings and colleagues at the Robert F. Wagner School of Public Service, New York University. The emergency department visit data reported is preliminary data from the Hospital Discharge Data Base and Hospital Ambulatory Care Data Base for January-December 2008. The category "Other" includes Worker's Compensation, Government Programs, and Title V.)





## Questions ?

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